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WASTEWATER MANAGEMENT PLAN, COLORADO RIVER AND TRIBUTARIES, TEX--ETC(U)

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⑥ WASTEWATER MANAGEMENT PLAN,  
COLORADO RIVER AND TRIBUTARIES, TEXAS.

VOLUME IV.  
Institutional Arrangements.

Prepared by

THE GOVERNOR'S PLANNING COMMITTEE

Office of the Governor  
Texas Water Development Board  
Texas Water Quality Board  
Texas Water Rights Commission  
Texas Parks and Wildlife Department  
Railroad Commission of Texas  
Texas State Department of Health  
Texas State Soil and Water Conservation Board  
U. S. Department of the Interior  
U. S. Department of Housing and Urban  
Development  
U. S. Environmental Protection Agency  
Farmers Home Administration

Lower Colorado River Authority  
Colorado River Municipal Water District  
Central Colorado River Authority  
Upper Colorado River Authority  
Capital Area Planning Council  
Alamo Area Council of Governments  
Central Texas Council of Governments  
Concho Valley Council of Governments  
Houston-Galveston Area Council  
Permian Basin Regional Planning Commission  
South Plains Association of Governments  
West Central Texas Council of Governments  
Nine General Public Members

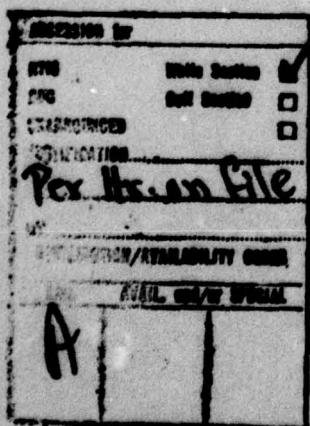
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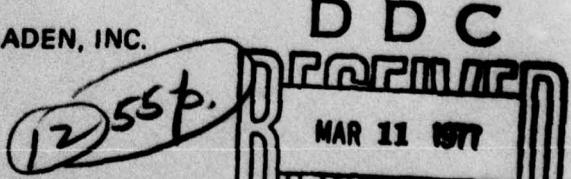
Study Management By

U. S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT



Consulting Engineers  
TURNER, COLLIE & BRADEN, INC.

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**ATTACHMENTS**

**A: Water and Institutional Arrangements in Texas**

**B: River Authorities in Basin**

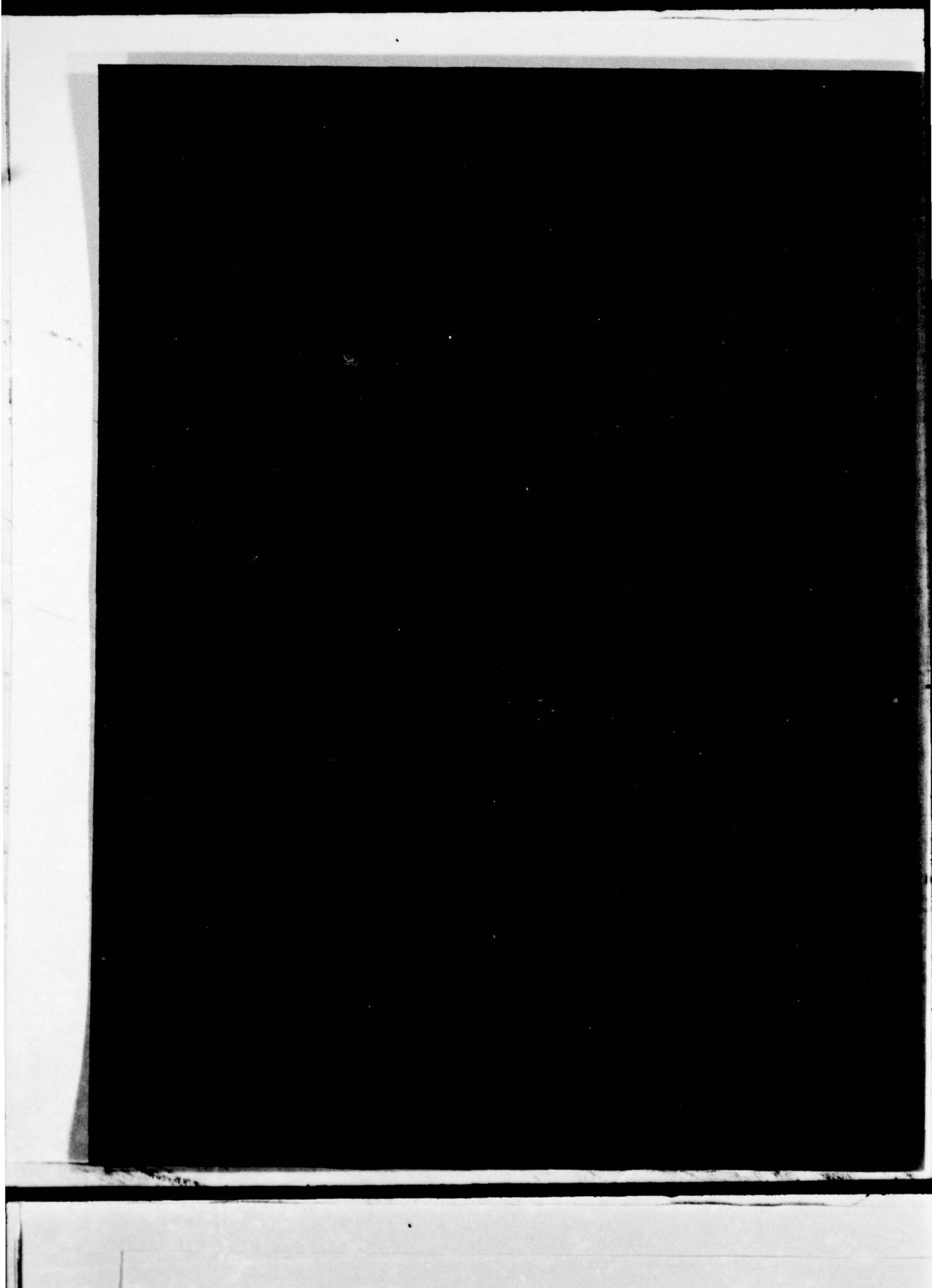
**C: Councils of Governments in Basin**

## ABSTRACT

The Institutional Arrangements Appendix has been reviewed by Federal, State, regional and local entities concerned with the Wastewater Management Study of the Colorado River Basin, Texas. The comments have been taken into consideration in this final report.

The recommendation of Alternative 1 was well received and approved by the majority of reviewers. It was recognized that the recommended alternative will provide central direction and control through the appropriate State agency and at the same time maintain active participation of the municipalities served. It was also recognized that Alternative 1 is implementable under existing laws and conditions and can be effected in the immediate future.

However, as a result of this study and changing conditions, staff consultations are currently being held between the Lower Colorado River Authority and the Colorado River Municipal Water District to discuss the possibility and the ramifications of a plan that would cover the entire Basin. If consultations result in positive action, the alternatives should be reviewed and consideration be given to Alternative 4. This alternative would have to be revised to reflect the Texas Water Quality Board's responsibility in the compact.

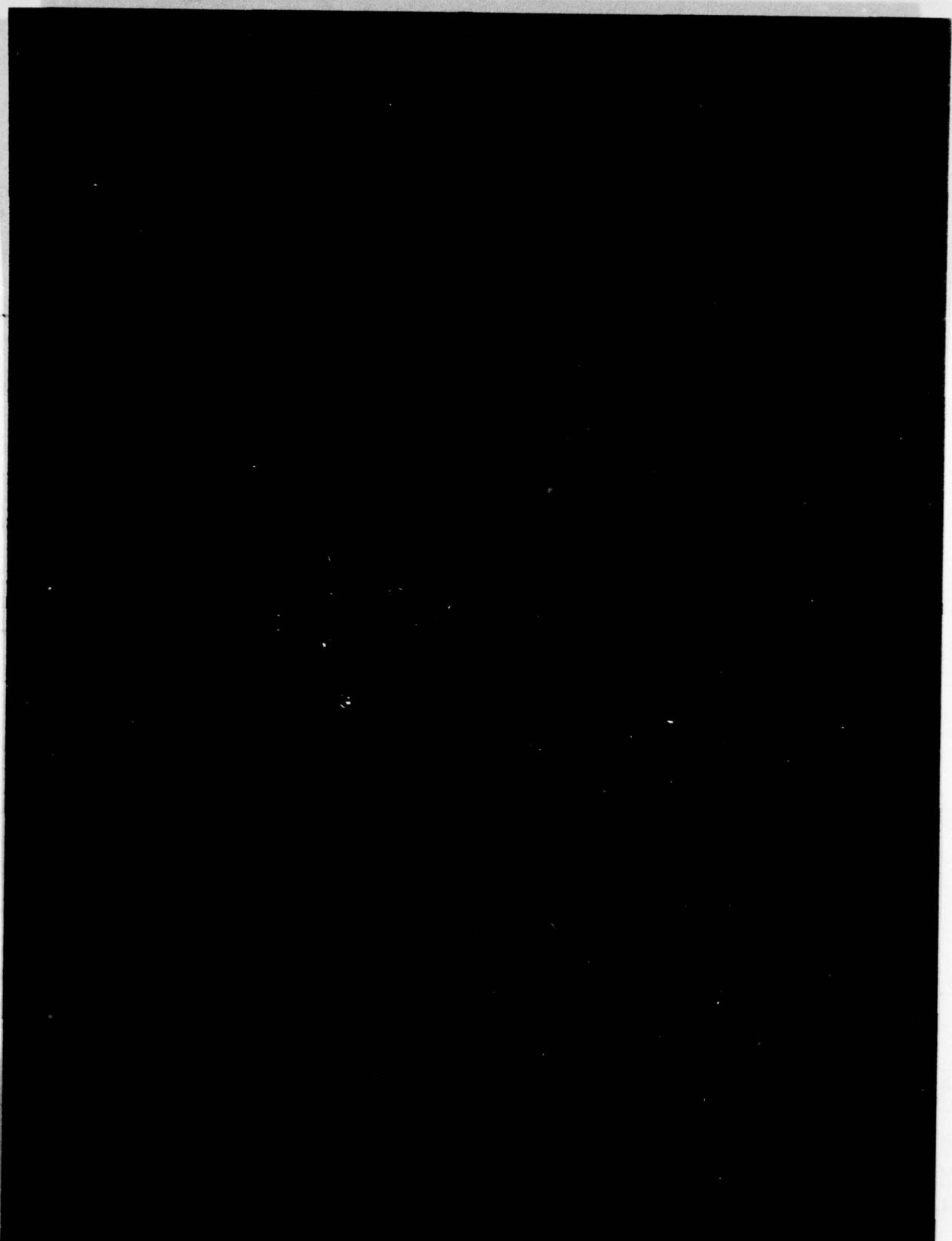


## I. PURPOSE OF INSTITUTIONAL STUDY

An effective planning process is an integral part of, and provides the basis for developing and efficiently implementing the total water quality management program.

The primary purpose of this phase of the study was to develop institutional arrangements for the design, construction, operation and maintenance of recommended system(s).

Rising in Dawson County, the Colorado River flows about 600 miles to the Gulf of Mexico. The Colorado River Basin covers 39,900 square miles in the State of Texas. Its runoff reaches an annual volume of more than 2,000,000 acre-feet near the Gulf. There is not a central river authority covering the entire Basin. Conservation and utilization of waters of the Colorado are mainly vested in the Lower, Upper and Central Colorado River Authorities and the Colorado River Municipal Water District. The lack of a single river authority encompassing the entire Basin is a major factor in developing and recommending institutional arrangements for the implementation of the study.



## II. METHODOLOGY EMPLOYED.

Base data were gathered by questionnaire, personal interviews, telephone calls to selected individuals and research, as follows:

### Questionnaire.

Questionnaires were mailed to 111 entities in the Basin. The entities included:

Cities and towns  
River authorities  
Water control and improvement districts  
Water conservation districts  
Fresh water supply districts  
Municipal utility districts  
Flood control districts  
Water supply districts  
Conservation-reclamation districts  
Water-soil conservation districts

Major areas contained in questionnaire (with sub-areas) were:

Creation of organization including its geographical jurisdiction  
Purposes and responsibilities of organization  
Changes in organizational responsibilities since creation  
Relationship with other organizations as they relate to wastewater management functions  
Summary of future plans and programs related to, or likely to affect wastewater treatment  
Description of current financial capability  
Description of current manpower situation  
Summary of proposed (anticipated, planned, under consideration) changes in critical institutional factors

### Personal Interviews.

In 1968, the Governor of Texas delineated 21 State Planning Regions as a framework for the coordination of functional planning and as a guide to Federal and State agencies in the delivery of services. State Planning Regions provide the boundaries for regional councils referred to as "Council of Governments," "Planning Councils," "Development Councils," "Planning Commissions," and/or "Association of Governments." There are nine Regional Planning entities with jurisdictional

area wholly or in part in the Colorado River Basin. Personal interviews were held with the director of each Regional Council whose jurisdiction covers areas within the Basin. Interviews were productive and geared to obtaining their plans and programs pertaining to wastewater management. In addition, copies of studies in the area of wastewater management and related areas were obtained. These studies were valuable, not only for the institutional arrangements phase of the study but to the technical areas as well.

Managers and planners of river authorities, major water districts, and metropolitan areas were also interviewed. The interviews were in line with those conducted with the Regional Council directors and were equally productive.

Telephone Calls.

Telephone calls were made to the less populated areas to heads of various entities to ascertain if there were programs and/or plans in existence that would have a bearing on wastewater management.

Research.

Research and analysis of completed and on-going related studies were made. Among these studies were:

Upper Trinity River Basin Comprehensive Sewerage Plan. (1)  
Water-Resource Development and Management in the Edwards  
Aquifer Region. (2)  
Water Quality Management Study - Guadalupe River Basin. (3)  
The Codorus Creek Wastewater Management Study. (4)

Texas Law Review Volume 48, Nos. 6 and 7 were studied for information. The Statutes of the State of Texas as they pertain to study subject were also studied for information and guidance. (5)

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(1) Conducted by Peat, Marwick, Mitchell, & Co. for North Central Texas Council of Governments.

(2) A report by the Water Resources Research Seminar, Lyndon B. Johnson School of Public Affairs, University of Texas, Austin.

(3) Vinson, Elkins, Searls & Smith for Guadalupe-Blanco River Authority - Upper Guadalupe River Authority.

(4) Department of the Army, Baltimore District Corps of Engineers.

(5) Published by the Texas Law Review, Inc., University of Texas School of Law, Austin.

There was a response from 32 organizations to the questionnaire, or a 29% response. Personal interviews were the most effective method of gathering base data.

### III. EXISTING INSTITUTIONS.

#### General.

The Colorado River flows 600 miles from the Texas South Plains to the Gulf of Mexico. Sixty-two counties are wholly, or in part, within the Colorado River Basin, Texas (Table I). The Basin has an area of 39,900 square miles and varies in width from about 170 miles in the vicinity of McCulloch County to about 15 miles at Columbus in Colorado County.

The 1970 census shows the population in the Colorado River Basin to be 816,000. The projected population is:

1,309,900 in 1980  
1,666,500 in 2000, and  
2,158,300 in 2020.

Currently, about 35% of the population is in Travis County. Population projections show that this county will have 47.5% of the Basin's population in 2020.

There are 190 cities, towns, and villages in the Colorado River Basin, of which 80 are incorporated, with population as follows:

Over 17,500	-	6 (Metropolitan Areas)
17,500 - 10,000	-	3
9,999 - 7,500	-	4
7,499 - 5,000	-	5
4,999 - 2,500	-	15
2,499 - 1,250	-	13
1,250 - 625	-	17
624 - 200	-	45
Less than 200	-	82

Municipalities are more involved in water pollution abatement than any other institution. The local governments are directly responsible to not only their citizenry, but also the State and Federal governments for the operation and maintenance of their wastewater treatment plants.

According to the Statutes of the State of Texas, there are two types of municipal government: Home Rule Cities and General Law Cities. Also, the law requires that an entity must have a population of 200 or more before it can incorporate.

TABLE I  
COUNTIES LOCATED WHOLLY OR PARTIALLY  
IN THE COLORADO RIVER BASIN

Andrews	Fayette	Midland
Austin	Gaines	Mills
Bastrop	Garza	Mitchell
Blanco	Gillespie	Nolan
Borden	Glasscock	Reagan
Brown	Hays	Real
Burnet	Hockley	Runnels
Caldwell	Howard	San Saba
Callahan	Irion	Schleicher
Coleman	Kendall	Scurry
Cochran	Kerr	Sterling
Coke	Kimble	Sutton
Colorado	Lampasas	Taylor
Comanche	Lee	Terry
Concho	Llano	Tom Green
Crane	Lynn	Travis
Crockett	Martin	Upton
Dawson	Mason	Wharton
Eastland	Matagorda	Winkler
Ector	McCulloch	Yoakum
Edwards	Menard	

Home Rule Cities can exercise full power of local government. A city must be incorporated and have a population of over 5,000 before it can have home rule government. In addition, the issue of local self-government must be put to a vote and approved by the majority of the people voting. This type of municipal government has taxing authority, can issue general obligation and/or revenue bonds in accordance with the laws of the State. It also has the authority to annex property and the power of eminent domain.

General Law Cities governments are statutory, must be incorporated and have a population of over 200 inhabitants. This type of government can annex property by petition only. It can levy taxes and issue revenue and/or general obligation bonds and has the power of eminent domain.

#### Location and Jurisdiction of Treatment Systems.

There are approximately 79 treatment plants in the Basin. Table II shows the location, design load, current population served, as well as population projection through 2020 and the regional planning area of each plant.

The waste treatment plants generally are owned, operated and maintained by the municipality where they are located. However, there are instances, due to wide dissemination of population or geographical removal from a centralized collection system, where entities other than municipalities are providing collection and treatment facilities. These smaller districts normally provide service to areas outside incorporated city limits, recreational areas and/or subdivisions, or are formed to allow the development of a wastewater collection and treatment system within a town or city which is not incorporated; for example, the Colorado County Water Control and Improvement District No. 2 provides this service to the city of Garwood.

#### River Authorities and Districts.

In 1904, a Constitutional Amendment was adopted permitting the creation of special districts.<sup>(1)</sup> Since that time, water districts have played an important part in the State's water programs. Special districts may be

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<sup>(1)</sup> Constitution of the State of Texas. Art. III, Sec. 52.

TABLE II  
TREATMENT PLANTS IN THE BASIN  
NON-METROPOLITAN AREAS

Location		Design Load (mgd)	1970 Population	Projected Population			Regional Planning Area
City	County			1980	2000	2020	
Andrews	Andrews	1.6	8,625	8,800	9,100	9,100	9
Ballinger	Runnels	0.445	4,203	4,100	3,600	3,100	7
Bangs	Brown	0.048	1,214	1,220	1,290	1,300	7
Bastrop	Bastrop	0.245	3,112	3,500	4,300	5,200	12
Big Lake	Reagan	0.375	2,489	2,200	1,700	1,300	10
Brady	McCulloch	1.00	5,557	5,100	4,000	3,000	10
Bronte	Coke	0.15	926	800	580	430	10
Brownfield	Terry	1.05	9,847	10,700	11,900	12,800	2
Buda	Hays	0.07	498	550	610	720	12
Burnet	Burnet	0.475	2,864	3,200	4,000	4,900	12
Clyde	Callahan	0.32	1,635	1,680	1,730	1,730	7
Coahoma	Howard	—	1,158	1,090	1,160	1,200	9
Coleman	Coleman	0.26	5,608	4,600	3,000	1,900	7
Colorado City	Mitchell	0.5126	5,227	4,600	3,600	2,700	7
Columbus	Colorado	0.720	3,342	3,500	3,700	3,800	16
Cross Plains	Callahan	0.125	1,192	1,220	1,260	1,260	7
North Denver City	Yoakum	0.275	4,133	4,500	4,500	4,400	2
South Denver City	Yoakum	0.122	—	—	—	—	2
Eagle Lake	Colorado	0.50	3,587	3,800	4,000	4,100	16
Early	Brown	—	1,097	Waste treated at Brownwood plant			7
Eden	Concho	0.1875	1,291	1,100	700	400	10
Eldorado	Schleicher	0.064	1,446	1,300	900	600	10
Elgin	Bastrop	0.375	3,832	4,400	5,500	6,700	12
Ellinger	Fayette	0.045	200	160	100	60	12
Fayetteville	Fayette	0.05	400	330	210	130	12
Fredericksburg	Gillespie	0.75	5,326	6,500	8,000	9,500	18(a)
Garwood	Colorado	0.054	961	850	730	600	16
North Giddings	Lee	0.115	2,783	3,000	3,000	2,900	12
South Giddings	Lee	0.10	—	—	—	—	12
Goldthwaite	Mills	0.15	1,893	1,600	1,400	1,100	11(b)
Johnson City	Blanco	0.126	767	800	900	1,000	12
Junction	Kimble	0.21	2,654	2,700	2,700	2,600	10
La Grange	Fayette	1.00	3,092	3,100	2,900	2,600	12
Lamesa	Dawson	1.84	11,559	10,900	9,500	7,900	9
Llano	Llano	0.379	2,608	3,000	3,700	4,500	12
Lorsine	Mitchell	0.10	700	570	390	250	7
Manor	Travis	0.056	940	1,180	1,740	2,400	12
Marble Falls	Burnet	0.38	2,209	2,260	2,320	2,240	12
Mason	Mason	0.141	1,806	1,500	1,100	800	10
Meadow	Terry	0.05	491	470	470	460	2
Menard	Menard	0.264	1,740	1,600	1,400	1,100	10
Miles	Runnels	0.08	631	530	320	170	7
Pleins	Yoakum	0.135	1,087	950	880	790	2
Richland Springs	San Saba	0.035	425	330	200	120	2

TABLE II (Continued)  
TREATMENT PLANTS IN THE BASIN  
NON-METROPOLITAN AREAS

City	County	Design Load (mgd)	1970 Population	Projected Population			Regional Planning Area
				1980	2000	2020	
Robert Lee	Coke	0.212	1,119	1,000	800	600	10
Sanatorium (McKnight St. Hosp.)	Tom Green	0.25	N/A	N/A	N/A	~	N/A
San Saba	San Saba	0.10	2,555	—	1,300	800	11(b)
Santa Anna	Coleman	0.12	1,310	—	810	560	7
Seagraves	Gaines	0.35	2,440	2,280	2,120	1,860	9
Seminole	Gaines	0.52	5,007	5,100	5,200	5,100	9
Smithville	Bastrop	0.265	2,959	3,500	4,500	5,600	12
Snyder	Scurry	2.0	11,171	10,600	9,300	7,800	7
Stanton	Martin	0.20	2,117	2,400	2,800	3,100	9
Sundown	Hockley	0.14	1,129	990	880	760	2
Weimar	Colorado	0.50	2,104	1,900	1,640	1,340	16
Wharton	Wharton	0.70	7,881	8,900	9,300	9,300	16
Winters	Runnels	0.21	2,907	2,900	2,700	2,400	7
Whiteface	Cochran	0.0756	394	500	320	210	2

METROPOLITAN AREAS

Austin	Travis		251,808	326,900	556,400	912,100	12
Govalle Plant		40.0					
Walnut Creek Plant		2.50					
Williamson Creek Plant		2.20					
Big Spring (New Plant)	Howard	2.8	28,735	32,000	36,900	40,900	9
		1.0	(2,700)				
Brownwood Municipal Airport	Brown	2.0	17,368	17,900	18,600	18,600	10
		0.200	100				
Midland Airport Terminal	Midland	4.67	59,463	62,300	67,400	70,100	9
		1.0	200				
Odessa	Ector	5.5	78,380	91,500	119,100	149,400	9
San Angelo Mathis Field	Tom Green	5.107	63,884	74,100	97,600	124,200	10
		0.10	100				

**TABLE II (Continued)**  
**TREATMENT PLANTS IN THE BASIN<sup>(1)</sup>**  
**RECREATIONAL AND PRIVATE DEVELOPMENT AREAS<sup>(1)</sup>**

Location		Permit Holder	Design Load (mgd)	1970 Population	Projected Population			Regional Planning Area
Area	County				1980	2000	2020	
Briarcliff Addition	Travis	Pedernales Country Club	0.015		Not applicable			12
Horseshoe Bay	Llano	Lake LBJ MUD No. 1	0.10		1,650	13,572**	19,415	12
*Inn & Marina	Travis	Lakeway MUD No. 1	0.10		1,700	12,500	21,890	12
Lake Greenway Cluster Homes	Travis	A. J. Scardino Commercial Designs	0.012					12
Rock Cove	Travis	Lakeway MUD No. 1	0.08					12
World of Tennis	Travis	Lakeway MUD No. 1	0.175					12
Lake Brownwood State Park	Brown	Texas Parks and Wildlife Dept.	0.01		Not applicable			10
Lago Vista	Travis	Travis County MUD No. 1	0.05	80	4,500	16,370	33,000	12
***Point Venture No. 1	Travis	Point Venture Development Co.	0.036	400	2,000	3,200	4,200	12
Point Venture No. 2	Travis	Point Venture Development Co.	0.05					12

\*Population figures also include Lake Greenway Cluster Homes, Rock Cove, and World of Tennis.

\*\*Estimated.

\*\*\*Population figures also include Point Venture No. 2.

(1) Does not include proposed treatment plants or water treatment plants.

established by the legislature, State agencies, counties and/or municipalities. There are 57 water districts in the Colorado River Basin. These entities range from river authorities which wield influence over multi-county areas to municipality-created districts which may have only precinct authority. Table III gives details of all water districts and the major entities are discussed fully in the text.

#### River Authorities.

Texas boasts of a number of active authorities, many of which have been operating for more than 30 years. Texas' early utilization of river districts is attributable to two factors: first, two-thirds of the State's rivers are wholly intra-State, removing the difficulty of possible inter-State friction; and secondly, a constitutional amendment authorizing the creation of "conservation and reclamation districts, including river authorities."

This legislation allows river authorities to play four principal water-quality-related roles: first, financing quality-oriented projects; second, planning programs pertaining to pollution abatement; third, building and operating sewage treatment plants; and finally, enforcing antipollution laws. The capability to finance treatment plant construction and maintenance through the levying of service charges and issuance of revenue bonds is guaranteed by all authorities, both by their enabling legislation and by the more explicit provisions of the Regional Waste Disposal Act.<sup>(1)</sup>

The Regional Waste Disposal Act allows an authority or other special district, to purchase, sell, or construct sewage collection and treatment facilities, or to contract with any "public agency" to provide for treatment of agency sewage in either the authority's plant or in an agency plant operated by the authority. Still more river authority activity in waste management may be possible under the amended Water Quality Act, which provides that the Texas Water Quality Board may require compulsory participation in designated regional waste disposal systems located in Standard Metropolitan Statistical Area (SMSA) as well as encourage the development of regional systems in non-SMSA areas.

In their roles of financing, planning, and waste management, in general, the river authorities are granted exceptional statutory powers. In the inspection-enforcement field, authorities have not generally received

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(1) Texas Revised Statutes Ann. article 8280-119. San Antonio River Authority and 8280-228 - Red River Authority.

the same personalized legislative treatment. Although some authorities have been granted specific inspection and enforcement roles,(1) the principal source of these powers is the Water Quality Act. Under that Act, an authority, like any other "local government," may conduct inspection and bring enforcement actions to obtain any remedy authorized by the statute.

The Colorado River Basin has no single river authority for the whole basin. Four major State-created entities have been assigned responsibilities related to certain phases of water development within their designated areas of the Basin. These are the Lower Colorado River Authority, the Colorado River Municipal Water District, the Central Colorado River Authority, and the Upper Colorado River Authority. The boundaries of the four agencies are not contiguous nor do their jurisdictional limits cover the entire Basin. Brief outline of these entities is:

Lower Colorado River Authority.

Article 8280-107, 43rd Legislature created this authority "consisting of that part of the State of Texas which is included within the boundaries of the counties of Blanco, Burnet, Llano, Travis, Bastrop, Fayette, Colorado, Wharton, San Saba and Matagorda." This area extends some 130 miles north of Austin, Texas to the Gulf of Mexico. This district provides electricity, supplies of water for domestic, municipal, agriculture and industrial use, regulation of floods, and makes possible inland waterways for commerce and industry in a large area of the Basin.

The Colorado River Municipal Water District was created by the 51st Legislature, Art. 8280-137. Originally the district was comprised of "the territory contained within the cities of Big Spring and Odessa, Texas, on March 1, 1949." The enacting legislation provides for expansion of territory by the fulfillment of certain specifics, namely petition and majority vote of the people requesting annexation. The city of Snyder, Texas has become part of the district since its creation and, in addition, the district provides water to several non-member cities, including Midland, Stanton and San Angelo.

The district is empowered to impound the storm and flood waters, and the unappropriated flow of the Colorado River and its tributaries, by the construction of a dam or dams across the river or its tributaries,

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(1)Texas Revised Statutes Ann. article 8280-119. San Antonio River Authority and 8280-228 - Red River Authority.

within the existing statutes. The district is also empowered to construct or otherwise acquire all works, plants and other facilities necessary or useful for the purpose of processing such water and transporting it to cities and others for municipal, domestic and industrial purposes.

The district, for the purpose of carrying out its power or authority, can acquire land and easements within or without the district by condemnation, as provided by statutes relating to eminent domain. The district is also empowered to issue its negotiable bonds to be payable from revenues for the purpose of providing a source of water supply for cities and other users for municipal, domestic and industrial purposes.

The Central Colorado River Authority was created by the 44th Legislature, Article 8280-111, and its territory consists of the boundaries of Coleman County. Among the functions of the district is the power to:

Control, store and preserve, within the boundaries of the district, the waters of the Colorado River and its tributaries for any useful purpose, and to use, distribute and sell same, within the boundaries of the district for any such purposes;

Develop and generate water power and electric energy within the boundaries of the district and to distribute and sell water power and electric energy, within or without the boundaries of the district; but such use shall be subordinate and inferior to all requirements for domestic, municipal and irrigation;

Forest and reforest and to aid in the foresting and reforesting of the watershed area of the Colorado River and its tributaries and to prevent and aid in the prevention of soil erosion and floods within said watershed area.

#### The Upper Colorado River Authority.

Article 8280-109, 44th Legislature created the Upper Colorado River Authority. This district is composed of Coke and Tom Green Counties. This entity enjoys many of the powers delegated by statutes to a river authority in the State of Texas. Included in these functions are:

Control, storing, preservation and distribution of the waters of the Upper Colorado River and its tributaries for irrigation and other useful purposes.

**TABLE III**  
**WATER DISTRICTS IN THE BASIN**

Water District	Created by
Bastrop County Water Control & Improvement (WCID)	County
Brown County Water Improvement (WID)	County
Central Colorado River Authority	Legislature
Coke County WCID	Legislature
Coleman County Fresh Water Supply (FWSD)	County
Coleman County WCID No. 1	County
Colorado County WCID No. 2	Texas Water Rights Commission (TWRC)
Colorado River Municipal Water District	Legislature
Concho County WCID No. 1	TWRC
Elm Creek Water Control (WCD)	Legislature
Fayette County Flood Control (FCD)	Legislature
Fayette County WCID	TWRC
Gillespie County WCID No. 1	County
Howard County WCID No. 1	County
Kimble County WCID	City of Junction
Lake LBJ Municipal Utility District (MUD)	TWRC
Lee-Lafayette Counties WCID	TWRC
Lipan Creek FCD (Tom Green County)	Legislature
Llano County FWSD	County
Lower Colorado River Authority	Legislature
Lower Concho Water-Soil Conservation (WSCD)	Legislature
Marble Falls WCID	City of Marble Falls
Martin County FWSD	County
Mason County River Authority	Legislature
Matagorda County Conservation & Reclamation (CRD)	County
Matagorda County Drainage District No. 1	County
Matagorda County Drainage District No. 2	County
Matagorda County Drainage District No. 3	County
Matagorda County Drainage District No. 4	County
Matagorda County Navigation District No. 2	County
Menard County WCID	County
Mills County FWSD	County
Mills County WCID	County
Nolan County FWSD	County
Reagan County Water Supply (WSD)	Legislature
Runnels County River Authority	Legislature
South Concho River FCD	Legislature
Taylor County WCID	County
Tom Green County FWSD No. 1	County

TABLE III (Continued)  
WATER DISTRICTS IN THE BASIN

Water District	Created by
Tom Green County FWSD No. 2	County
Tom Green County WCID	County
Travis County WCID - Point Venture	TWRC
Travis County WCID No. 9	County
Travis County WCID No. 10	County
Travis County WCID No. 11	County
Travis County WCID No. 12	County
Travis County WCID No. 13	County
Travis County WCID No. 14	County
Travis County WCID No. 15	County
Travis County WCID No. 17	County
Travis County WCID No. 18	County
Turkey Creek Conservation District (Comanche County)	Legislature
Tuscola-Taylor County FWSD	County
Upper Colorado River Authority	Legislature
Valley Creek WCD (Runnels County)	Legislature
Willow Creek WCD (Runnels County)	Legislature
Yoakum County WCID	County

The reclamation and irrigation of arid, semi-arid and other lands needing irrigation and the conservation and development of the forests, water and hydro-electric power of the State of Texas.

Authority to issue revenue bonds and the power of eminent domain.

State and Regional Agencies.

State Agencies.

Texas Water Rights Commission.

In 1913 the Texas Legislature passed the first major recodification of irrigation laws and created the State's first water agency, the Board of Water Engineers, to regulate appropriations of water. In 1962 the 57th Legislature changed the name to the Texas Water Commission. The 59th Legislature in 1965 realigned the functions of the State water agencies. The Texas Water Commission was renamed the Texas Water Rights Commission and charged with administration of water rights and other duties.

The Texas Water Rights Commission regulates the uses and conservation of water resources declared to be the property of the State; namely, the waters of ordinary flow and underflow and tides of every flowing river or natural stream; the waters of all its lakes, bays, or arms of Gulf of Mexico; the storm, flood, or rain waters of every river or natural stream or varied types of watersheds; and waters imported from any source outside the State. The vital duties of the Commission include:

- (1) The issuance of permits to use the waters of the State. Applications to impound, divert, and use these waters must meet standards of water availability, beneficial and efficient uses, optimum development of the project site, and adequacy of design so as to use the State's water for the greatest public good.
- (2) The review and approval of construction plans and specifications of dams and reservoirs prior to construction to insure that the authorized facilities will not be hazards to public safety.
- (3) The implementation of the State's Water Rights Adjudication Act of 1967 requires that unrecorded claims of water rights, based upon actual use, be recorded with the Commission, and provides for the adjudication of claims

and the administration of water rights.

- (4) The cancellation of unused water rights in the interests of the best use and conservation of the State's water resources.
- (5) The maintenance of public records of all water rights and claims filed according to the Adjudication Act.
- (6) The creation of and jurisdiction over municipal utility districts, water control and improvement districts, water improvement districts, drainage districts, and other special districts. These districts are under the continuing jurisdiction of the Commission. Citizens, small communities, towns, cities, counties and other governmental entities may organize into water districts in the manner established by law to provide public water, sewer, and drainage facilities.
- (7) The approval of all engineering projects using tax and revenue bonds to provide the public facilities for which the water district was created, to insure that the district has the ability to repay the bonded debt from revenue and/or taxes.
- (8) The Texas Water Code was recently amended to provide the Commission with more comprehensive and broader authority regarding dams located in the State. It empowered the Commission to make and enforce rules and orders necessary to provide for the safe construction, maintenance, repair and removal of dams located in the State of Texas.

Texas Water Development Board.

This agency was created in 1957 by the 55th Legislature. Initially, the sole function of the Board was as a lending agency of the State to assist political subdivisions to develop local water supplies by means of long-term, low-interest loans from a Water Development Fund. The creating act was contingent upon passage of a constitutional amendment which would establish the funds by sale of Water Development Bonds and authorize the loan assistance program. The Constitutional Amendment was approved by Texas voters on 5 November 1957.

In 1962, the Constitution of Texas was again amended (Article III,

Section 49-d) to authorize the Texas Water Development Board to acquire conservation storage space in reservoirs. This section was further amended in 1966 to increase the total amount of bonds (\$400,000,000) authorized for the Water Development Fund and to permit acquisition of other water resource facilities.

In 1965, the functions of the State water agencies were realigned by the 59th Legislature. The Texas Water Development Board, which until that time had been solely a funding agency, was assigned additional water studies, planning, and development responsibilities. These responsibilities include: (1) preparation and maintenance of a current, comprehensive State Water Plan, (2) coordination with Federal water development planning agencies for water supply projects, (3) basic-data collection, both quantity and quality, for ground and surface water resources, (4) responsibilities of the former State Reclamation Engineer, (5) Executive Director is a member of the Texas Water Quality Board and the Water Well Drillers Board, (6) provide engineering and technical assistance to other State agencies in water-related matters, (7) administer the Weather Modification Act, and (8) coordinate flood plain information studies and serve as liaison for the State and local governments under the National Flood Insurance Act. The Water Development Board is also required under the Texas Water Quality Board Act to advise the Texas Water Quality Board on all matters relating to the quality of ground water in the State.

Another Constitutional Amendment was approved in 1971, authorizing the Water Development Board, at the direction of the Water Quality Board, to issue bonds to provide funds (\$100,000,000) for water quality enhancement projects (waste treatment plants and related facilities). These funds were originally made available to political subdivisions of the State as matching funds necessary for obtaining maximum Federal grants for construction of treatment works under then-existing Federal statutes. The 63rd Legislature, in S. B. 847, amended the Water Code to establish procedures that would enable monies in the Water Quality Enhancement Account to be used to lend financial assistance to political subdivisions of the State for the construction of treatment works without being limited in use to matching Federal funds. The water development funds and water quality enhancement funds are maintained in separate accounts. However, loans can be made from the water development fund as well as the water quality enhancement fund to finance water treatment facilities.

#### Texas Water Quality Board.

The Texas Water Quality Board was created by the Legislature under the Texas Water Quality Act of 1967 as the successor to the Texas

Water Pollution Control Board (which had been functioning since 1961). This Board is the principal authority on matters relating to the quality of waters in the State, and is also responsible for maintaining a water quality sampling and monitoring program for the State of Texas.

Specifically, under Texas statutes the Board is responsible for establishing criteria governing the discharge of wastes into the waters of the State; using permits (waste control orders) for such purposes; regulating subsurface disposal of wastes other than wastes resulting from activities associated with the exploration, development, and production of oil and gas and refining thereof; regulating disposal of industrial solid waste collection and disposal; conducting research and planning, both independently and in cooperation with other agencies, groups, or persons, toward the goal of developing comprehensive water quality control programs in the State; administering grants allocated to the State by the Environmental Protection Agency and funds appropriated by the Legislature for the planning and construction of sewage treatment facilities; and making inspections and enforcing the rules, regulations, permits and orders of the Board.

In addition to making substantial amendments to the Texas Water Quality Act, the 61st Legislature enacted a separate penal provision for water pollution.

The Water Quality Board is also the governmental agency responsible for processing applications and approving the proposed facilities of municipalities and other political subdivisions who seek State financial assistance from the Water Quality Enhancement Fund for the construction of waste treatment facilities. Rules and regulations for the processing and granting of such applications for financial assistance have been promulgated jointly by the Water Quality Board and the Water Development Board.

#### The Texas Railroad Commission.

The Texas Railroad Commission is solely responsible under Texas statutes for protecting surface and sub-surface fresh water from pollution caused by activities associated with the exploration, development and production of oil and gas. The Texas Railroad Commission is also responsible for the disposal of wastes including brine resulting from these activities. The Commission meets these statutory mandates through the adoption and enforcement of Statewide rules and regulations. The Commission's Statewide field operations system monitors all phases of oil and gas activities in Texas. Compliance with Commission rules and regulations is enforced through the use of pipeline severances, formal orders, and court action.

Texas State Department of Health.

The Texas State Department of Health is responsible for public health aspects of water pollution, a function it has performed since 1916. The Department provides local health services, preventive medical services, and special health services, and is responsible for solid waste pollution control. The Department also reviews plans for domestic water treatment plants and collection systems unless these facilities are partially funded by PL 84-660, and is available to provide consulting service on health engineering problems to assist municipalities, county governments, and State agencies. The laboratories of the Department provide service for all of the State water agencies through inter-agency contract. The Department periodically collects samples for bacteriological quality examinations at specified stations along the entire length of each of the major rivers in the State.

The Department is charged with making studies and investigations and collecting evidence in connection with the enforcement of safe water laws and other laws relating to sanitation. This includes the certification of the competency of water and sewage plant operators.

Regional Councils of Governments.

The Texas Legislature enacted legislation (Article 1011m, V. A. C. S.) in 1965 which permits local governments to establish voluntary associations known as regional planning commissions. These agencies, commonly referred to as councils of governments (COG's), now blanket the entire State, providing planning, coordinative and other services. Membership in regional councils include 230 of the State's 254 counties and more than 1,000 cities, school districts and special districts. More than 98 percent of all Texans live in member counties.

Under separate legislation, the Governor is designated as the State's Chief Planning Officer. On this basis, Article 1011m authorizes the Governor's Division of Planning Coordination to administer the State of Texas' Regional Planning Assistance grant program to regional councils, and to provide other technical assistance and information services on behalf of regional councils. Additionally, the Division of Planning Coordination is the State clearinghouse for review and comment on Federally and State-assisted projects. Authority for the clearinghouse responsibility comes from Office of Management and Budget (OMB) Circular A-95, and from Article 1011m, V. A. C. S.

Boundaries for regional councils must be coterminous with the State Planning Regions delineated by the Governor in December 1968. The

State Planning Regions were committed to law (Article 1011m, V.A.C.S., as amended) in 1971. The State Planning Regions, which are required to be reviewed biennially by the Division of Planning Coordination, serve to provide a uniform geographic framework for State and Federal area-wide planning and service delivery.

Regional councils provide a wide range of services to member local governments. These include comprehensive planning in criminal justice and law enforcement, health, environmental quality, transportation, developmental disabilities, water and sewer facilities, waste treatment, land use and open space. In addition, many provide services such as family planning, local planning assistance, alcoholism services and economic development planning. Each is responsible for areawide police training, police communications improvement programs and areawide housing plans.

Regional councils are not a layer of government. They are voluntary associations of local governments; by law, they must be controlled by at least two-thirds local elected officials. They are prohibited from having any taxing authority. Funding comes from voluntary local dues, State grants (amounting to a Statewide total of \$1.7 million annually beginning in SFY 1974) and Federal categorical grants.

Table IV shows the member counties in the Colorado River Basin.

Interagency Council on Natural Resources and the Environment.

In the management and development of the State's natural resources for the people of Texas, the administrative organizations involved and the intergovernmental relations necessarily connected with them are continually becoming more complex. Thus, numerous State, Federal, and local agencies are concerned with many natural resources programs at varying degrees of intensity and responsibility, and the related governmental activities often overlap one another.

The 60th Texas Legislature designated the Governor as the Chief Planning Officer of the State and authorized the creation by the Governor of interagency planning councils, chaired by the Governor, to foster the coordination of functional State planning and programs. This was done in legislative recognition that the important need for effective cooperation in the coordination of administrative planning and control would undoubtedly increase as the State continued to grow. Thus, the Interagency Natural Resources Council was created as the focal point to conduct State resource and environmental activities on a joint, co-operative basis.

The present members of the Council are:<sup>(1)</sup>

General Land Office  
Office of the Governor  
Texas Air Control Board  
Texas Department of Agriculture  
Texas Highway Department  
Texas Industrial Commission  
Texas Parks and Wildlife Department  
Texas Railroad Commission  
Texas Soil and Water Conservation Board  
Texas Water Development Board  
Texas Water Quality Board  
Texas Water Rights Commission

The Council is the means that has been established to help coordinate the natural resources development of Texas and to undertake the Coastal Resources Management Program. This Program is aimed at determining the economic, cultural and recreational contribution of the State's Coastal Zone under various levels and types of development and to formulate the essentials of a system to manage the coastal and marine resources of Texas.

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(1) Texas A&M University and the University of Texas at Austin sit on the Council as ex-officio members.

**TABLE IV**  
**REGIONAL COUNCILS IN THE BASIN**

Regional Council	County	Basin City and/or Town
1. Alamo Area Council of Governments (Region 18a)	a. Gillespie b. Kendall c. Kerr	Fredericksburg — —
2. Capital Area Planning Council (Region 12)	a. Bastrop b. Blanco c. Burnet d. Caldwell e. Fayette f. Hays g. Llano h. Lee i. Travis	Bastrop Cedar Creek Elgin McDade Paige Red Rock Rosanky Smithville Cypress Mills Hye Johnson City Round Mountain Burnet Granite Shoals Marble Falls Spicewood Dale Carmine Ellinger Fayetteville La Grange Ledbetter Muldoon Plum Round Top Warda Warrenton West Point Winchester Buda Driftwood Dripping Springs Bluffton Buchanan Dam Castell Kingsland Llano Lone Grove Tow Valley Springs Giddings Austin Creedmoor Del Valle Jonestown Manor Oak Hill Pflugerville

TABLE IV (Continued)  
REGIONAL COUNCILS IN THE BASIN

Regional Council	County	Basin City and/or Town
3. Central Texas Council of Governments (Region 11 (b) )	a. Lampasas b. Mills c. San Saba	Lometa Goldthwaite Mullin Bend Cherokee Richland Springs San Saba
4. Concho Valley Council of Governments (Region 10)	a. Coke b. Concho * c. Crockett d. Irion e. Kimble f. Mason g. McCulloch h. Menard i. Reagan * j. Schleicher k. Sterling * l. Sutton m. Tom Green	Bronte Robert Lee Silver Tennyson Eden Eola Millersview Paint Rock — Barnhart Mertzon Sherwood Junction London Roosevelt Telegraph Grit Katermcy Mason Pontotoc Brady Doole Fredonia Melvin Mercury Rochelle Voca Fort McKavett Hext Menard Best 

\*Non-Member  
\*\*City-Member

TABLE IV (Continued)  
REGIONAL COUNCILS IN THE BASIN

Regional Council	County	Basin City and/or Town
4. Concho Valley Council of Governments (Region 10) (Continued)	m. Tom Green (Continued)	Knickerbocker San Angelo Vancourt Wall Water Valley
5. Houston-Galveston Area Council (Region 16)	a. Austin b. Colorado	— Alleyton Alton Columbus Eagle Lake Garwood Glidden Nada Rock Island Weimar
	c. Matagorda	Bay City Matagorda
	d. Wharton	El Campo Egypt Glen Flora Lane City Pierce Wharton
6. Middle Rio Grande Development Council (Region 18 (b) )	a. Edwards b. Real	Rock Springs —
7. Permian Basin Regional Planning Commission (Region 9)	a. Andrews b. Borden c. Crane d. Dawson e. Ector f. Gaines g. Glasscock h. Howard i. Martin	Andrews Frankel Gail — Lamesa Patricia Welch Goldsmith Odessa Loop Seagraves Seminole Garden City Big Spring Coahoma Knott Vealmoor Vincent Ackerly Lenorah Stanton Tarzan

**TABLE IV (Continued)**  
**REGIONAL COUNCILS IN THE BASIN**

Regional Council	County	Basin City and/or Town
7. Permian Basin Regional Planning Commission (Region 9) (Continued)	j. Midland k. Upton	Midland Midkiff
8. South Plains Association of Governments (Region 2)	a. Cochran b. Garza * c. Hockley d. Lynn e. Terry * f. Yoakum	Bledsoe Morton Whiteface — Sundown — Brownfield Meadow Willman Bronco Denver City Plains
9. West Central Texas Council of Governments (Region 7)	a. Brown b. Callahan c. Coleman * d. Comanche e. Eastland f. Mitchell g. Nolan h. Runnels	Bangs Blanket Brookesmith Brownwood Early May Zephyr Clyde Cottonwood Cross Plains Burkett Coleman Glen Cove Goldsboro Gouldbusk Novice Rockwood Santa Anna Taipa Trickham Valera Voss — — Colorado City Lorraine Westbrook Blackwell BaHinger Hatchel Miles

\*Non-Member

TABLE IV (Continued)  
REGIONAL COUNCILS IN THE BASIN

Regional Council	County	Basin City and/or Town
9. West Central Texas Council of Governments (Region 7) (Continued)	h. Runnels (Continued)	Norton Rowena Wingate Winters
	i. Scurry	Dunn Fluvanna Hermleigh Ira Snyder
	j. Taylor	Lawn Ovalo Tuscola

#### IV. ALTERNATIVE INSTITUTIONAL ARRANGEMENTS.

The selection of an institutional arrangement to implement the Colorado River Basin Wastewater Management Plan will be derived from the various available alternatives. There can be no perfect institutional arrangement, because experience teaches that no one organizational structure will satisfy all parties or persons reporting or responsive to it. The selected alternative will be structured to satisfy as many needs and criteria as possible.

##### Analysis of Existing Conditions.

###### Authority.

Under existing laws of the State of Texas and regulations developed by the various State and local agencies, the Texas Water Quality Board has the overall authority in the implementation of institutional arrangements. The Board is the principal authority in the State for wastewater and water quality management on matters relating to the quality of waters in the State. This institution has the responsibility for administering Federal-State grants-in-aid programs and funds appropriated by the State Legislature for the planning and construction of sewage treatment facilities. The Water Quality Board is also the State Agency responsible for administering applications and approving the proposed facilities of municipalities and other public agencies who seek State financial assistance in the construction of waste treatment facilities. In addition, as the Water Pollution Control Agency for the State of Texas, it has the responsibility of setting priorities in the construction of treatment plants, in accordance with the Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500 (PL 92-500).

###### Funding.

###### Federal Funds.

It appears that Federal grant support for the construction of treatment plants will ultimately be centralized in the Environmental Protection Agency, and/or provided as part of revenue sharing. PL 92-500 directs and authorizes the Environmental Protection Agency to provide grants for the construction of wastewater treatment plants. This includes interceptors, outfalls and collector systems. For award of grants, it is required that the project or projects be a part of an approved plan. The amount of any grant for treatment plants under this Act is 75% of the cost of construction as approved by the Environmental Protection Agency.

### State Funds.

The people of Texas approved a constitutional amendment in 1971 to provide \$100 million of State revenue bonds for water quality enhancement. These funds are provided at the direction of the Water Quality Board through the Water Development Fund administered by the Water Development Board. These funds are in addition to \$400 million provided under the Water Development Fund for water development projects. The water development account and the water quality enhancement account are maintained separately. Initially, the water quality enhancement funds were made available as matching funds to enable political subdivisions to obtain maximum Federal grants for construction of treatment works under then existing Federal statutes. The 63rd Legislature amended the Water Code in 1973 to establish procedures to enable Water Quality Enhancement Funds to be used to provide for financial assistance to political subdivisions of the State for construction of treatment works without being limited to use for matching Federal funds. Financial assistance is provided by loans effected by the Water Development Board's purchase of bonds issued by the borrowing political subdivisions. The main provisions are that the bonds must have a maturity date not exceeding 40 years from the date of issuance and they must bear an interest rate equivalent to the weighted average interest rate on all bonds previously sold to obtain money for the Water Quality Enhancement Fund, plus one-half of one percent. Such financial assistance from the State can be extended only when the political subdivision cannot reasonably finance the project without State assistance.

### Managerial.

The effectiveness and economy with which wastewater treatment plants and collection systems are designed, constructed, and operated are dependent upon the availability of qualified personnel responsible for these functions. The Environmental Protection Agency has instituted a grant program on "Manpower Planning for Wastewater Treatment Plants." This program is administered by the Texas Water Quality Board for the State. The basic function of this program is aimed at recruiting, retaining and utilizing manpower, and to develop programs to provide adequate training for new and current employees in the water pollution control field.

### Acquiring and Utilizing Land for Land Application Treatment.

The land component of any land application wastewater disposal system could be used for three purposes: to treat wastewater, to reclaim purified wastewater, and to cultivate and harvest crops. The land has to come

under control of the managing entity before use can be performed in an efficient manner. Three basic options are open: purchase, lease, and easements and/or permits.

Existing conditions weighing public versus private ownership, tax revenues, residential patterns and other factors must be considered in making decisions. Each action should be considered in itself and no overall pattern for the Basin can be established.

Alternative Implementation Plans.

Alternative 1.

The Texas Water Quality Board coordinating the implementation functions directly with individual municipalities and other public entities, including river authorities, with provisions for Regional Implementing Authorities at such time as such regional systems are feasible.

Impacts.

Favorable.

Improvement of water quality in the Basin.

Little disruption in existing institutional structure as this alternative approximates the present situation.

Utilization of existing local wastewater management staffs with additional coordination and technical assistance by the Texas Water Quality Board.

Federal and State financial assistance with the acceptance of an approved plan.

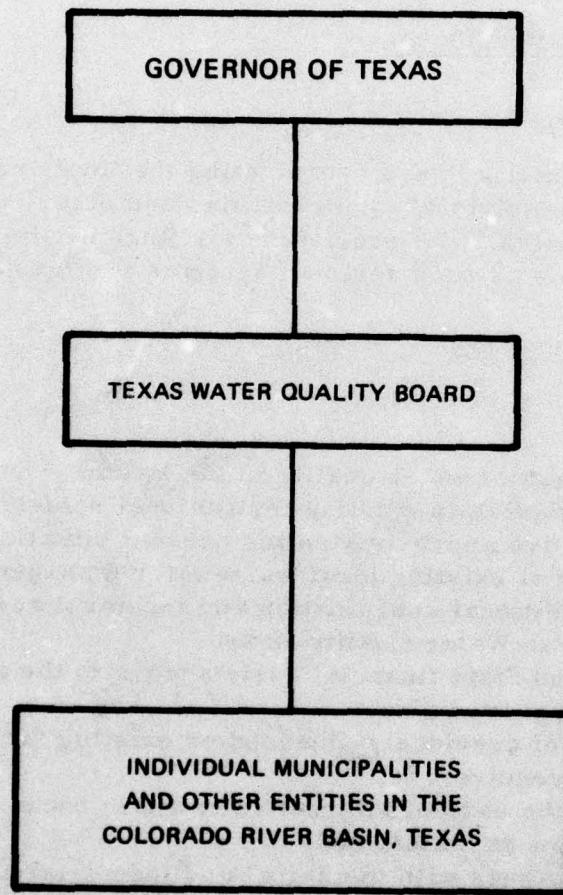
Takeover of previously-financed or existing facilities will not be required.

Would be the easiest alternative to attain because local autonomy is maintained.

For those areas with municipal and industrial growth warranting a regional system, a regional implementing authority could provide the centralized leadership in organization, administration, planning, finance, construction, operation and maintenance.

A regional implementing authority would realize possible economies of scale.

**ALTERNATIVE 1**



Unfavorable.

Possible increase in local taxes and/or sewer rates.  
Possible inefficiencies in water quality management in the Basin due to local financing and operation of waste treatment facilities.  
Possible difficulties in obtaining financing through local governments.

Alternative 2.

Compact composed of the Lower, Central and Upper Colorado River Authorities and the Colorado River Municipal Water District.

Impacts.

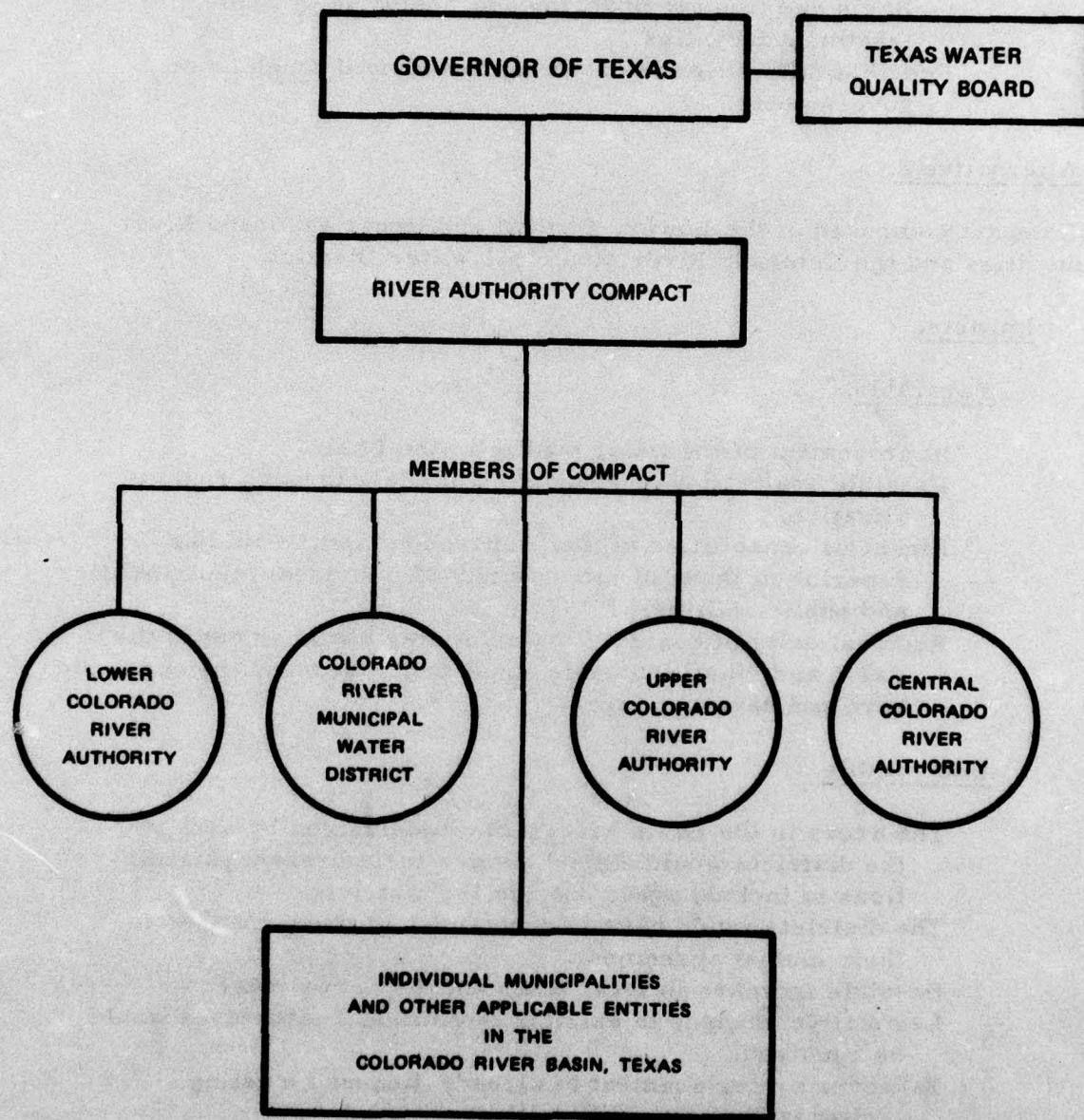
Favorable.

Improvement of the water quality in the Basin.  
Possible realization of economies of scale through regionalization.  
Financial capabilities of the proposed compact would be superior to those of the majority of individual municipalities and public entities.  
Regional unity of control for wastewater management in the Basin and, thus, possible equalization between the economic have and have-not areas.

Unfavorable.

The areas in the Basin area to be implemented by each of the districts would extend outside their present jurisdictions to include areas outside the districts.  
The districts would have to accommodate these changes to their mutual agreement.  
Possible increase in local taxes and/or sewer rates.  
Legislative changes to existing institutional structures would be required.  
Takeover or replacement of already-financed existing facilities may pose difficulties.  
Acceptance of the compact would be difficult to attain because of the political and public sentiments which are so diversified throughout the Basin.  
Additional manpower requirements to implement the plan.  
Erosion of local control of wastewater management decisions.

**ALTERNATIVE 2**



Alternative 3.

One of the existing River Authorities to implement the Plan for the entire Basin.

Impacts.

Favorable.

Improvement of the water quality in the Basin.

Financial capability of a river authority would be superior to those of the majority of individual municipalities and public entities.

Regional control for wastewater management in the Basin and thus, possible equalization between the economic have and have-not areas.

Unfavorable.

Legislation would be required to enlarge the service area of one of the existing districts to include the areas in the Basin of the other districts as well as those areas outside the districts' jurisdictions.

This would require the consent of the other districts in the Basin.

Possible increase in local taxes and/or sewer rates.

Legislative changes to existing institutional structures would be required.

Possible realization of diseconomies of scale due to the tremendous size of the Basin and distances between pollution-production points.

Financing may pose prohibitive difficulties under existing taxing authorities of each district; the financial capability to implement the plan would require a complete revision of the present tax system without which the costs to the proposed districts would be excessive.

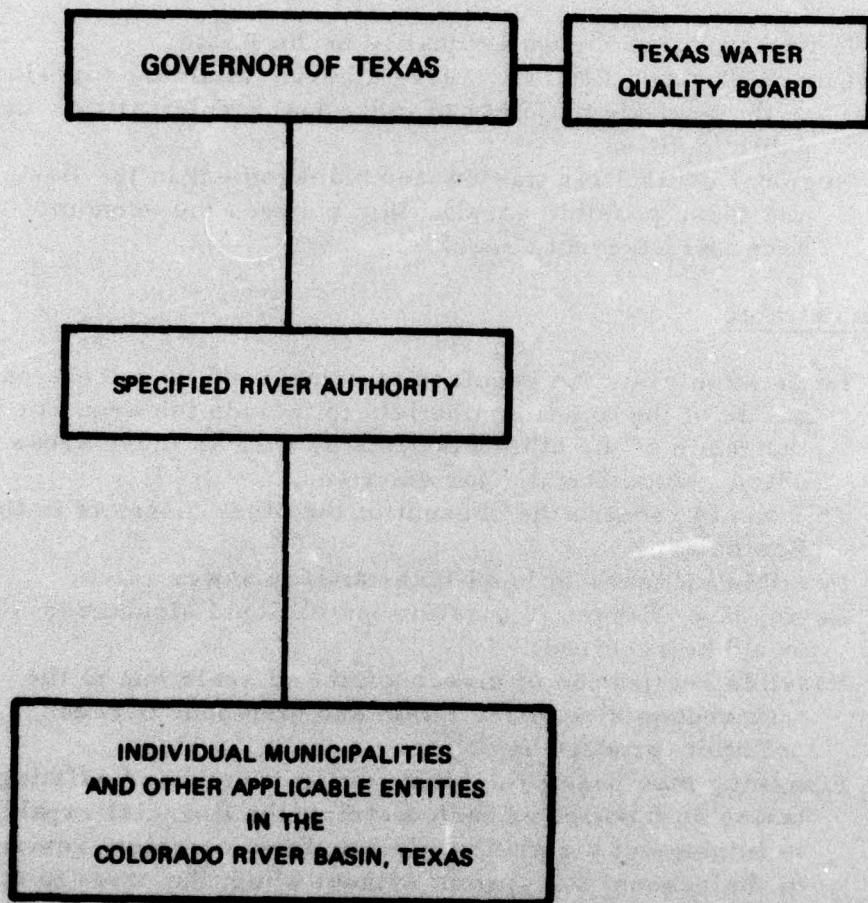
Takeover or replacement of already-financed existing facilities may pose difficulties.

Acceptance of the one implementing district would be difficult to attain because of the strong political and public sentiments which are so diversified throughout the Basin.

Additional costs due to increased manpower requirements to implement the plan.

Erosion of local control of wastewater management decisions.

ALTERNATIVE 3



Alternative 4.

A compact of two major water districts in the Basin: the Lower Colorado River Authority and the Colorado River Municipal Water District.

Impacts.

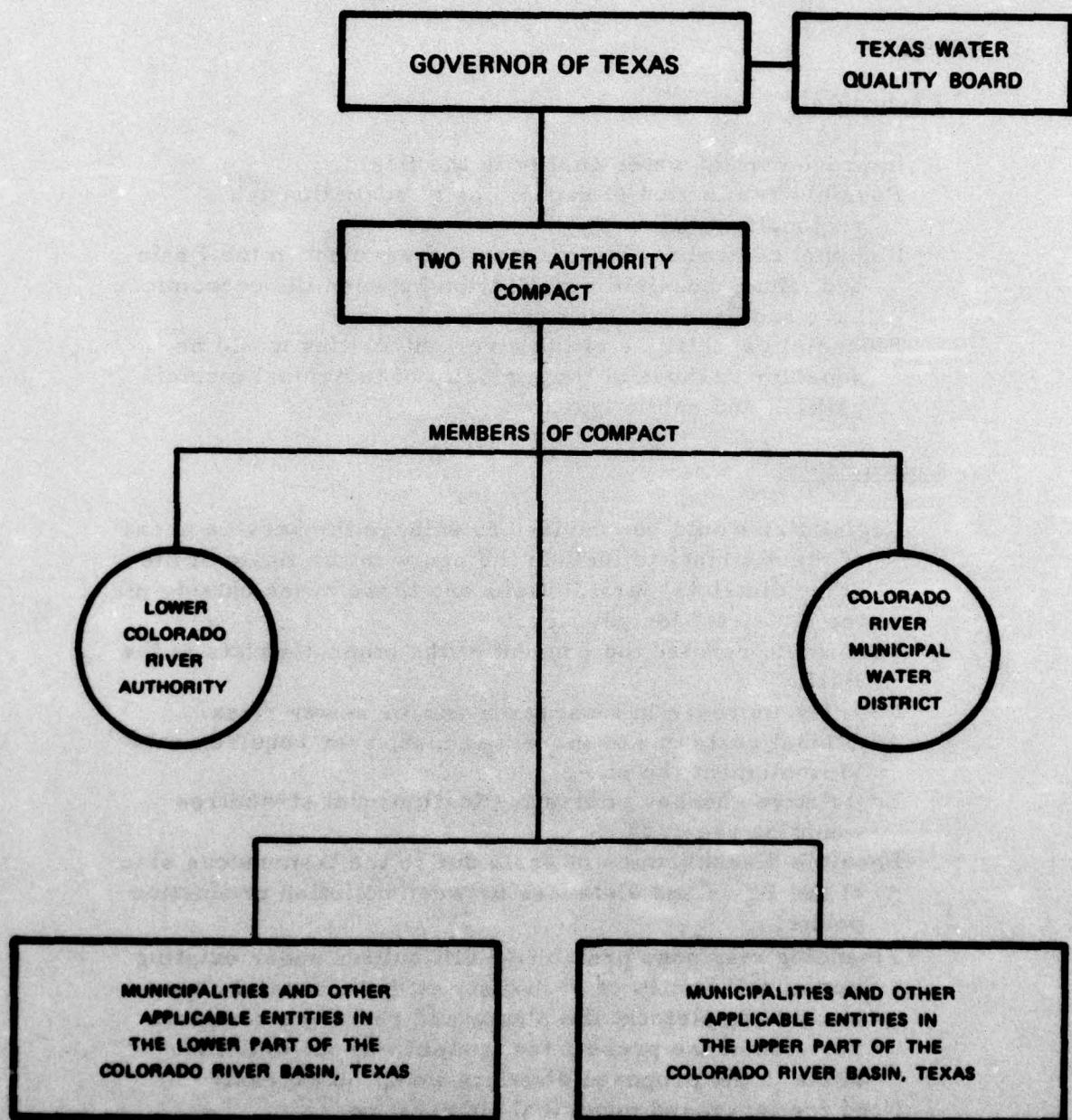
Favorable.

Improvement of water quality in the Basin.  
Possible realization of economies of scale through regionalization.  
Regional control for wastewater management in the Basin and, thus, possible equalization between the economic have and have-not areas.  
Financial capabilities of the river authorities would be superior to those of the majority of individual municipalities and public entities.

Unfavorable.

Legislation would be required to enlarge the service areas of the districts to include the areas in the Basin of the other districts' jurisdictions and those areas outside all the districts' jurisdiction.  
This would require the consent of the other districts in the Basin.  
Possible increase in local taxes and/or sewer rates.  
Additional costs due to increased manpower requirements to implement the plan.  
Legislative changes to existing institutional structures would be required.  
Possible diseconomies of scale due to the tremendous size of the Basin and distances between pollution production points.  
Financing may pose prohibitive difficulties under existing taxing authorities of each district; the financial capability to implement the plan would require a complete revision of the present tax system without which the costs to the proposed districts would be excessive.  
Need for increased municipal cooperation.  
Takeover or replacement of already-financed existing facilities may pose difficulties.

ALTERNATIVE 4



Acceptance of the two proposed implementing districts would be difficult to attain because of the strong political and public sentiments which are so diversified throughout the Basin.

Erosion of local control of wastewater management decisions.

Alternative 5.

The Texas Water Quality Board coordinating the implementation functions through the Councils of Governments in the Basin: South Plains Association of Governments; Permian Basin Regional Planning Commission; West Central Texas Council of Governments; Concho Valley Council of Governments; Central Texas Council of Governments; Alamo Area Council of Governments; Capital Area Planning Council; Houston-Galveston Area Council; and Middle Rio Grande Development Council.

Impacts.

Favorable.

Improvement of water quality in the Basin.

Possible realization of economies of scale through regionalization.

Regional control for wastewater management in the Basin and, thus, possible equalization between the economic have and have-not areas.

Unfavorable.

Voluntary nature of COG membership; such implementing authority would require the consent of all member governments, which may be difficult.

Implementation of this plan would be an entirely new field and the expertise for the construction, operation and maintenance of treatment facilities would have to be developed.

Possible increase in local taxes and/or sewer rates.

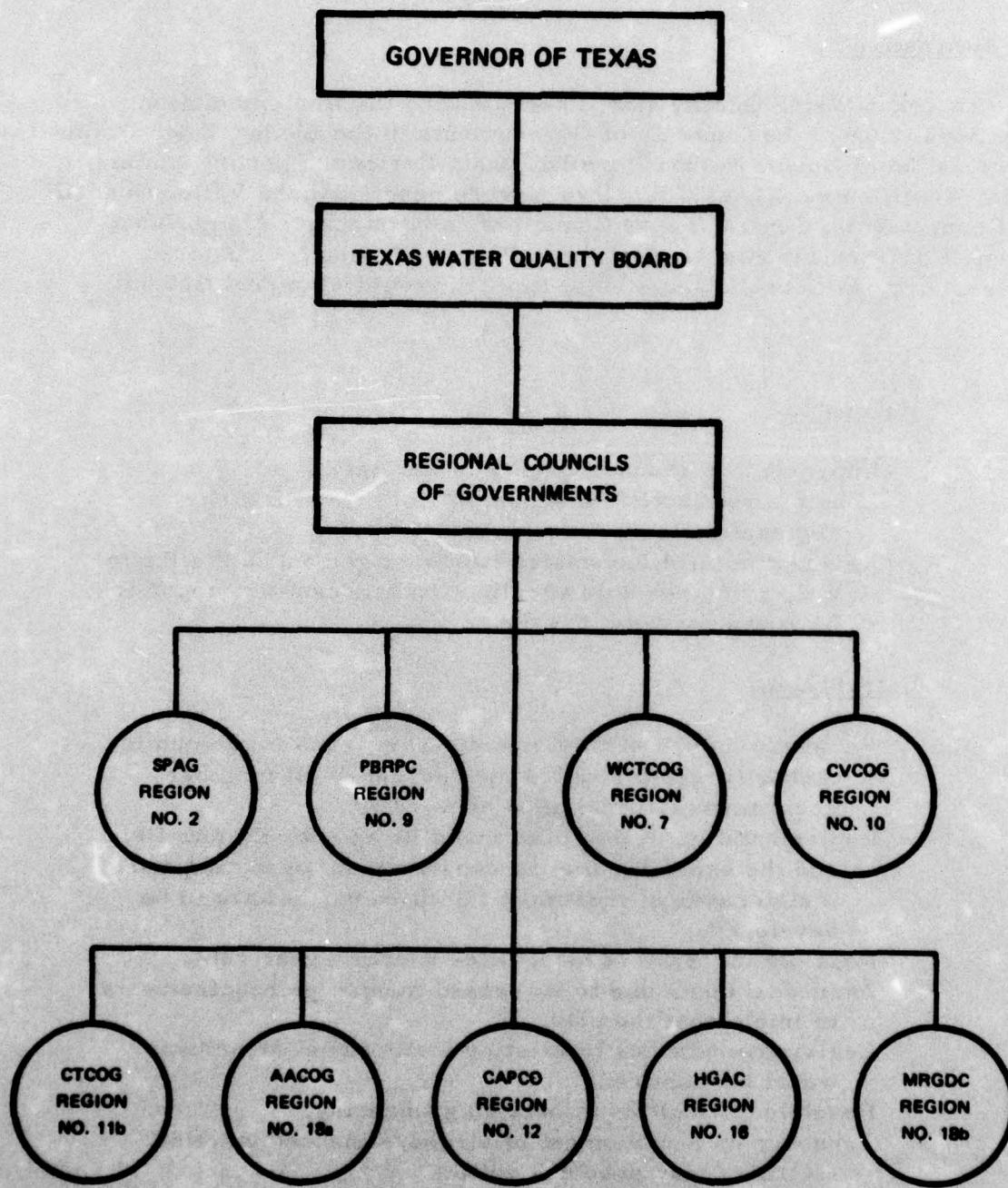
Additional costs due to increased manpower requirements to implement the plan.

Legislative changes to existing institutional structures would be required.

Possible difficulties in obtaining financing.

Takeover or replacement of already-financed existing facilities may pose difficulties.

**ALTERNATIVE 5**



Would be difficult to attain because of the strong political and public sentiments which are so diversified throughout the Basin.

Individual municipalities, upon whose voluntary cooperation the COG's operate, would hesitate to lose their autonomy. COG's have no taxing authority.

Erosion of local control of wastewater management decisions. There still remains to be tested the legal question of COG's authority to implement the plan.

The boundaries of the nine planning regions are not totally in the Basin; this may pose managerial and administrative problems to the COG's in effectively working in areas within the Basin and those areas outside the study area but still in their jurisdictions; they may present a lack of uniform implementation practices across the Basin.

#### Discussion and Evaluation.

##### Legislation.

Legislation changes would have to take place to implement Alternatives 2, 3, 4, and 5. Past legislative efforts to alter district boundaries have met concerted opposition and have consistently failed. It appears that the same conditions still exist in the Basin and legislative changes would receive major opposition. Alternative 1 would not require legislative changes.

##### Funding.

All of the alternatives provide sources of funding for treatment systems. Alternatives 2 and 4 would probably provide superior financing capability because of the fiscal soundness of the river authorities in the Basin.

##### Organizational Changes.

Alternative 1 would not require organizational changes. The other four alternatives would require changes in institutional arrangements. If the current trend continues, these changes would be resisted by the people.

##### Meeting Federal and State Requirements.

All the alternatives provide means of meeting Federal and State requirements for funding management. Alternative 1 would retain local autonomy to a higher degree than the other alternatives.

Improvement in Water Quality.

Water quality requirements of PL92-500, as well as the State of Texas' requirements, would be met by all the alternatives.



## V. CONCLUSIONS AND RECOMMENDATIONS.

### Conclusions.

Changing present legislation would be extremely difficult. Past attempts have met with failure. The institutional arrangement to implement this plan should be within the scope of present legislation. Present laws are adequate for providing the State with a way to meet Federal requirements.

It is desirable that local autonomy be observed to the highest degree possible.

Fragmentation of authority to monitor water pollution control is not desirable.

Serious consideration should be given to a regional implementing authority for areas with municipal and industrial growth warranting a regional system.

### Recommendations.

It is recommended that Alternative 1 be the institutional arrangement for the implementation of this study. This structure would provide central direction and control through the Texas Water Quality Board and at the same time assure representation to the local municipalities served. Under this alternative, the possibility of a regional solution to a specific regional wastewater problem area could be facilitated. As it approaches the present situation, such an alternative is feasible under existing State legislation.

It is further recommended that should existing conditions change and one authority and/or compact of authorities that would cover the entire basin be formed (see Abstract), Alternative 4 be considered to implement this study. The alternative would need revision to reflect the in-line responsibility of the Texas Water Quality Board. Alternative 4 would provide excellent funding capabilities, as well as personnel with the required expertise for implementation of the study.

ATTACHMENT A

INSTITUTIONAL ARRANGEMENTS IN THE COLORADO RIVER BASIN

